

Windpark Handalm

NER 300

The project

Technology category: Wind energy

Location: Deutschlandsberg, Styria, Austria

Max. NER 300 funding: EUR 11.3 million

Final investment decision: December 2014

Entry into operation: December 2018

State of advancement

Currently the project sponsor received all required legal permits and the construction phase was already started in April 2016. Roadworks and foundations are completed, the construction of the windmills will start May 2017.

Outlook for coming year

The main activities for the year 2017 will be:

- Public relation activities in affected municipalities
- Completion of grid connection to substation Deutschlandsberg
- Construction of the wind turbines
- Start of operation

Outlook for coming 5 years

- Construction phase shall be completed by October 2017
- Entry into operation

Project sponsor

Energie Steiermark AG

Project summary

Within the project, a wind park consisting of 13 windmills with a nominal electric capacity of 39 MW will be constructed in the mountainous area of Deutschlandsberg (Styria, Austria) named Handalm.

The chosen location is located at an average height of 1800 m above sea level. Given the location and the site characteristics, the project will demonstrate applicability on a larger scale of a wind turbine generator optimised for the special wind and site conditions in mountain locations. Wind farm performance is estimated at 73 GWh/year.

Within the project innovative approaches concerning the used windmills will be considered as follows:

- Permanent alternator excitation for a wind turbine without a gear drive
- Special turbine control system for areas with unusual wind flow distortions and sea level above 1600 m
- Integrated optimisation system for rough weather conditions (e.g. windstorms)
- Concept for a network of icing sensors and de-icing system for each windmill

The main advantage of direct drive wind turbines is their simple and yet sophisticated design that makes the use of gearboxes dispensable. Because gearless systems accommodate less rotating machine components, this technology could reduce the cost of maintenance and increase availability.

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Climate Action

Public factsheet 2016